

USDA Makes Final Move To 'Checkmate' Alfalfa Weevil

WASHINGTON — American farmers are turning out to be the winners in an ongoing "chess" match of wasps against alfalfa weevils, according to a U.S. Department of Agriculture official.

"The alfalfa weevil is extremely destructive to alfalfa crops. Each year farmers spend hundreds of millions of dollars to control these insects with chemical pesticides," says Bert W. Hawkins, administrator of USDA's Animal and Plant Health Inspection Service. "But an APHIS program aimed at combatting the weevils with natural enemies — tiny parasitic wasps imported from Europe and Asia — is beginning to check weevil numbers and to reduce the amount of costly chemicals it takes to control them."

Hawkins uses chess terminology to describe the high-stakes match between the weevils and the wasps. "A chess match is similar to a match between a biological control agent and a target pest," he says. "In the same way a chess player reduces an opponent's strength piece by piece, a beneficial insect gradually reduces a target pest's numbers until it no longer does economically significant damage."

The idea of controlling alfalfa weevils with natural enemies was first developed by scientists of USDA's Agricultural Research Service, Hawkins says. In the mid-1950's, ARS researchers identified several species of wasps in Europe and Asia that parasitized other insects to reproduce. The females of the parasitic wasps deposit their eggs inside another insect's body. When the eggs hatch, the host insect literally is eaten alive by the wasp larvae. All of these parasitic

wasp species are stingless and harmless to humans and animals.

"ARS made the first moves to put the alfalfa weevils in check in 1959," says Hawkins, "when researchers established some of these parasitic wasp species in 11 northeastern and mid-Atlantic states, expecting they would parasitize the weevils. Placing the wasps in the northeastern and mid-Atlantic regions formed the first of three 'chess boards,' on which the match against the alfalfa weevil is fought. The boards now cover the lower 48 states."

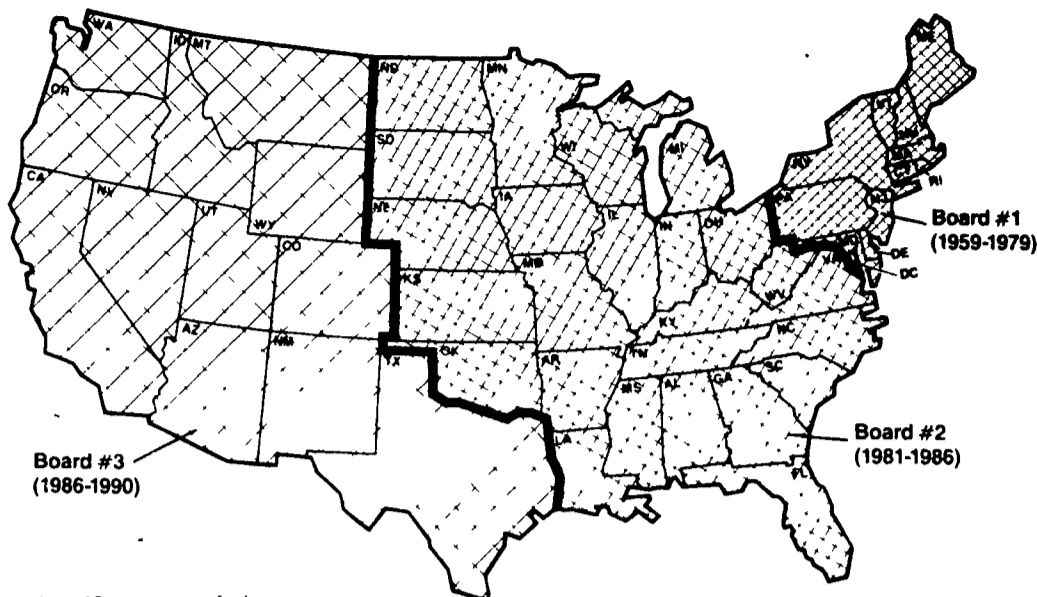
The wasps on the first chess board were so successful in reducing weevil numbers, says Hawkins, that by 1980, spraying of chemical insecticides to control the weevil in the 11 states dropped 73 percent, saving alfalfa producers an average of \$8 million a year in pesticide and application costs. USDA spent only \$1 million on the program over the 21-year period. Some states reported that the wasps alone provided virtually 100 percent protection from the weevil.

"In 1980, APHIS took over from ARS as chess master, and set up a second board covering 25 states further west," says Hawkins. Employees of the Cooperative Extension Service and state departments of agriculture cooperated with APHIS in the expanded match. Since 1981, about 15 million parasitic wasps have been released at thousands of locations in the 25 states.

"At this moment, no further releases seem necessary on this second board," Hawkins says. "All the pieces seem to be in place to put the alfalfa weevil in check."

The wasps on the second board will not reach maximum numbers

Putting the Alfalfa Weevil in Check: the Three Chess Boards



for six to 10 years, but a preliminary review by USDA's Economic Research Service indicates the wasps are already reducing the numbers of pesticide applications needed to control the weevils.

"Placing weevils on the second board of 25 states cost us about a

half million dollars per year," says Hawkins, "so the savings for farmers in these states far outweigh the cost of the program."

APHIS is now in the process of setting up the third and last game board in its continuing match against the weevil, says Hawkins. The third board covers the 12

western-most states of the lower 48. Releases of wasps, which began last year in the area of third board, are scheduled for 545 sites across the region. In 1987 alone, more than 2 million adult wasps will be released. The board will be completely set up by 1990.

Commodity Program Change Announced

Producers who participate in the 1987 commodity programs will not be allowed to plant nonprogram crops on their permitted program crop acreage or earn deficiency payments on those acres, according to Donald E. Lutz, Chairman of the Berks County Agricultural Stabilization and Conservation Committee.

In 1986, farm program participants could plant nonprogram

crops on their permitted acreage if planting, or a contract to plant occurred before Feb. 26, 1986.

However, under the 1987 program provision, producers who plant at least 50 percent of their permitted acres to a program crop, and devote the remaining permitted acreage to conservation uses, will be eligible to receive deficiency payments on 92 percent of the permitted acreage. This is

known as the 50/92 program, Lutz said.

Lutz said the 1987 commodity programs also prohibit the production of alternate crops on Acreage Conservation Reserve land.

Producers who comply with the 1987 farm programs will be eligible for deficiency payments, price support loans and land diversion payments for feed grain crops.

BLESSINGS AT CHRISTMAS

What a humbling experience it must have been some 2,000 years ago when Christ, our Lord, was born in a lowly manger in Bethlehem.

It is with a deep sense of thankfulness at this most blessed time of the year that all of your friends that work for Beacon Feeds along with all of our Beacon dealers would like to extend to you and your families best wishes for a "Merry Christmas" and a "Happy New Year".



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